

DRAWINGS

Fig 1

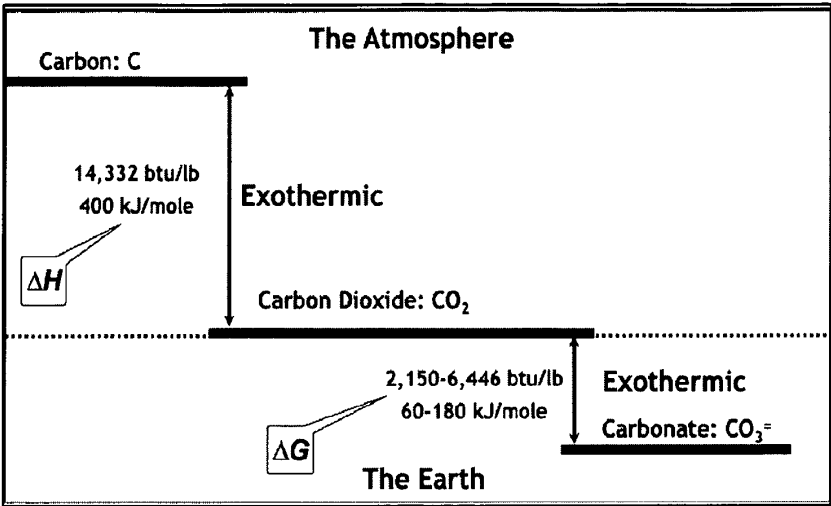


Fig 2

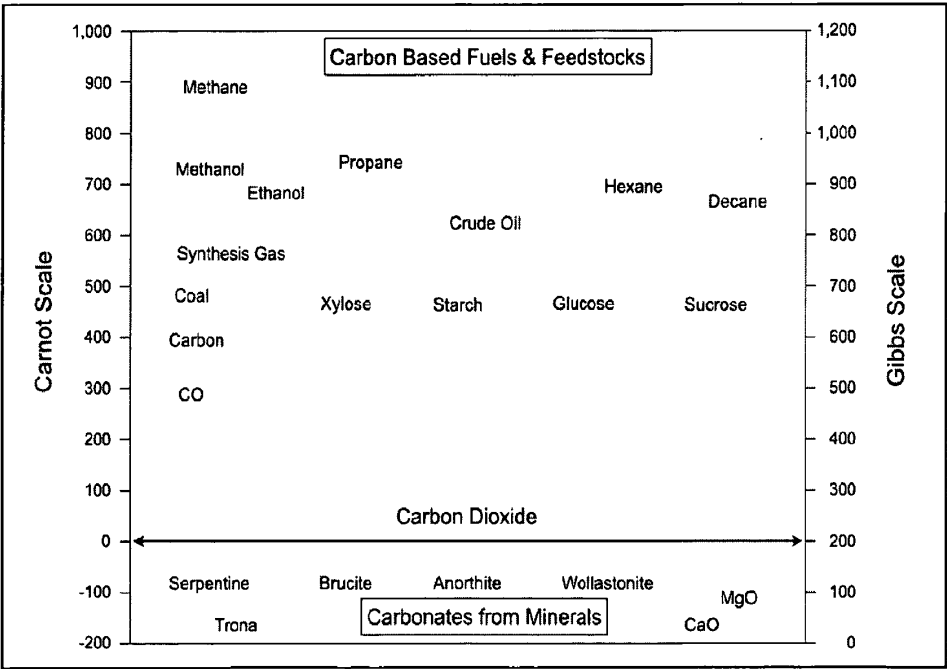


Fig 3

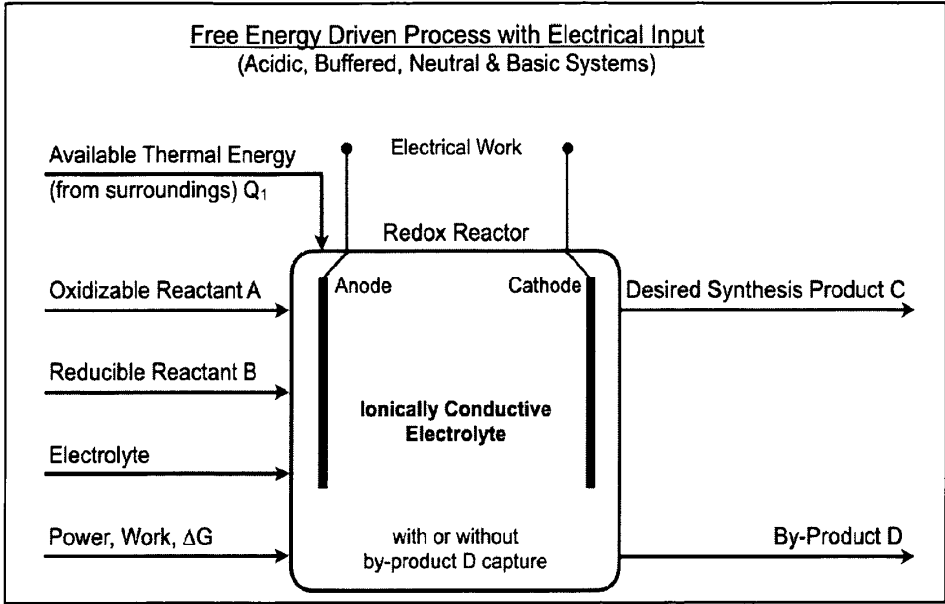


Fig 4

Reactant A + Reactant B + energy, power, $\Delta G \Rightarrow$ Desired Product C + By-Product D						
Oxidizable Reactant A	Reducible Reactant B	Ionically Conuctive Electrolyte	Work, Power, ΔG	Electron Transfer Material	Desired Product C	By-Product D
Amines	H ₂ O	Alkali Metal Hydroxides	Heat	Conductive Metals	Hydrogen	Oxygen
Sulfurs		Alkali Earth Metal Hydroxides	Electricity	Precious Metals	Hydrocarbons	Bicarbonate
Alcohols		Organic Nitrogens	Vibrations	Carbon	Alcohols	
Paraffins		Carbonates	Sonics	Intermetallics	Ammonia	
Alkanes		Phosphoric Acid	Piezoelectrics	Titanium Suboxide		
Alkenes		Hydrohalic Acid	Pressure	Magnesium Suboxide		
Carbon		Sulfuric Acid	Radiations	Carbides		
CO ₂		Solid Polymer Electrolytes	Magnetics	Nitrides		
H ₂ O		Ionic Liquids (Low Temp.)	Induction	Borides		
		Fused Salts (High Temp.)	Non-Uniform Fields	Ceramics		
		Propionates				
Examples:		Examples:		Examples:	Examples:	
CH ₃ OH		KOH, NaOH, H ₃ PO ₄		MgO _{1.9} , TiO _{1.9}	CH ₄	
CH ₄		NaH ₂ PO ₄ , Na ₂ HPO ₄		Boron Nitride	CH ₃ OH	
NH ₃		Na ₃ PO ₄ , H ₂ SO ₄		Nickel Boride	formate	
S		HF, Nafion		Silicon Carbide	CO, CO ₂	

Fig 5

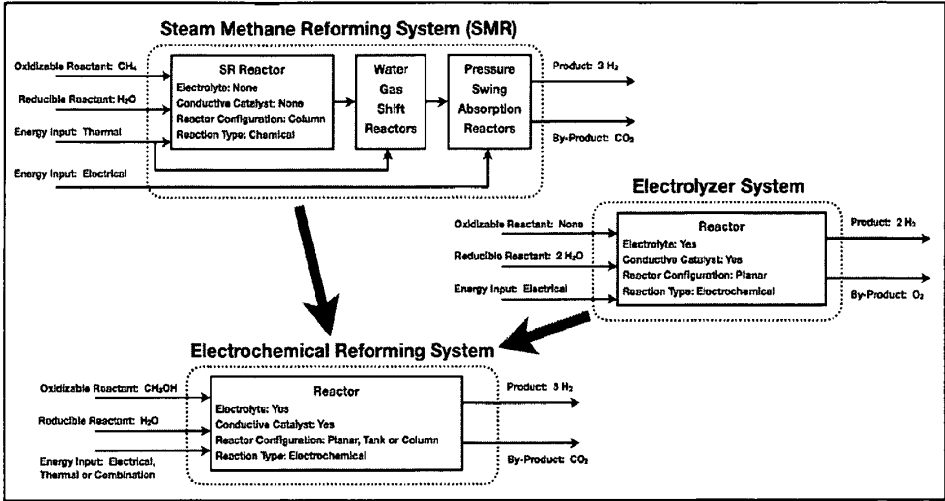


Fig 6

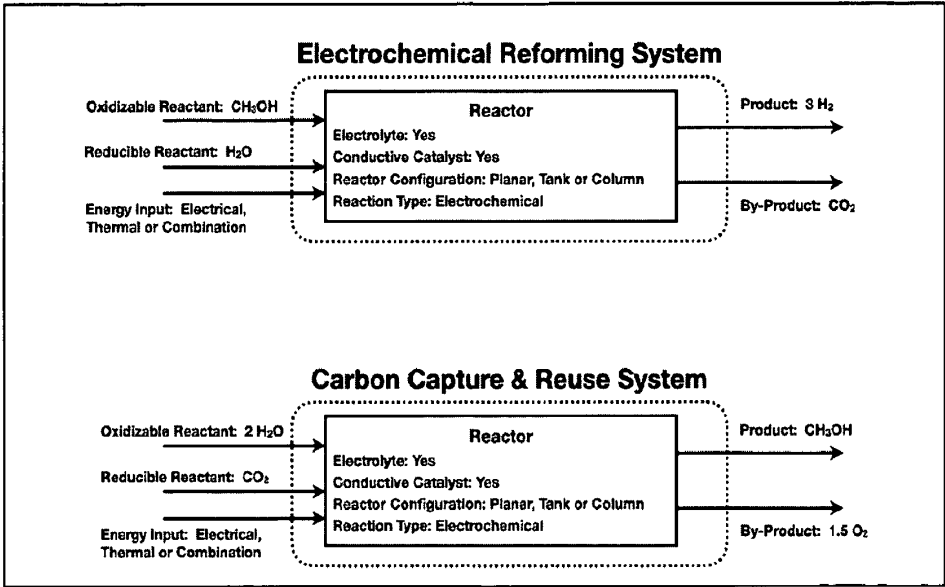


Fig 7

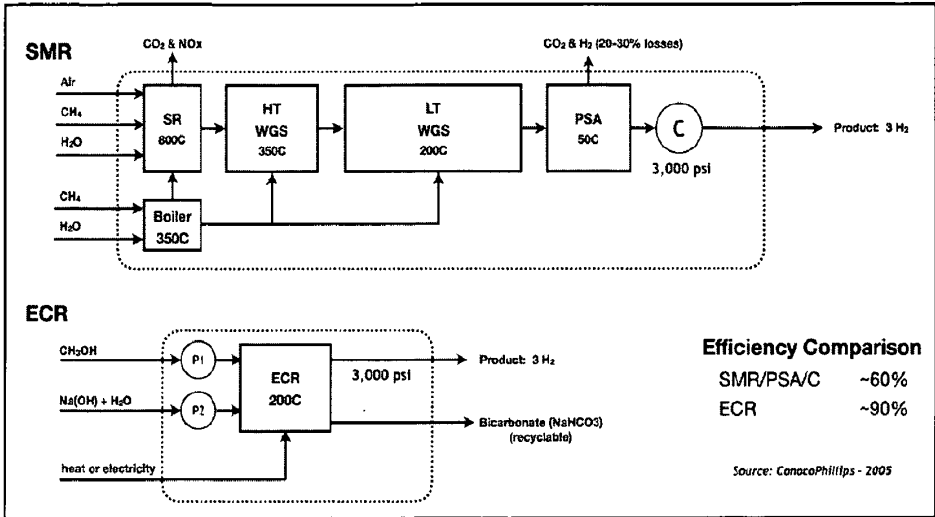


Fig 8

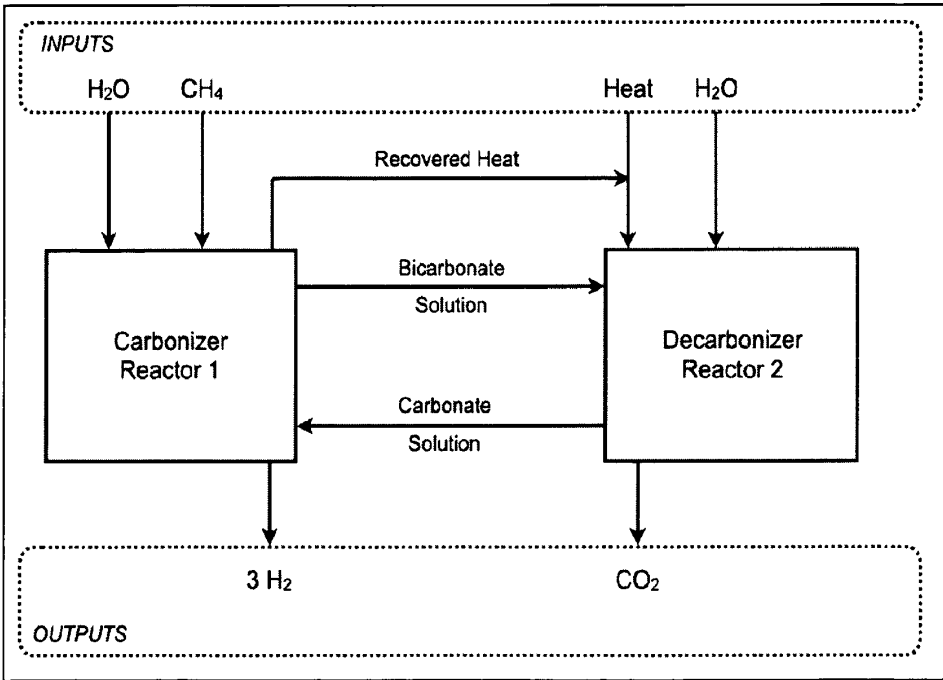


Fig 9

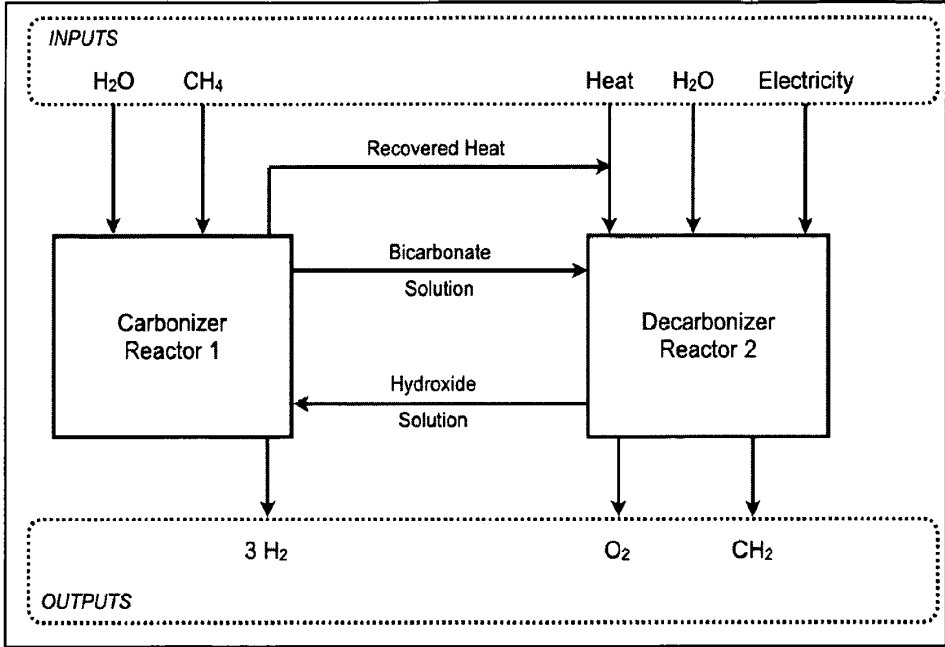


Fig 10

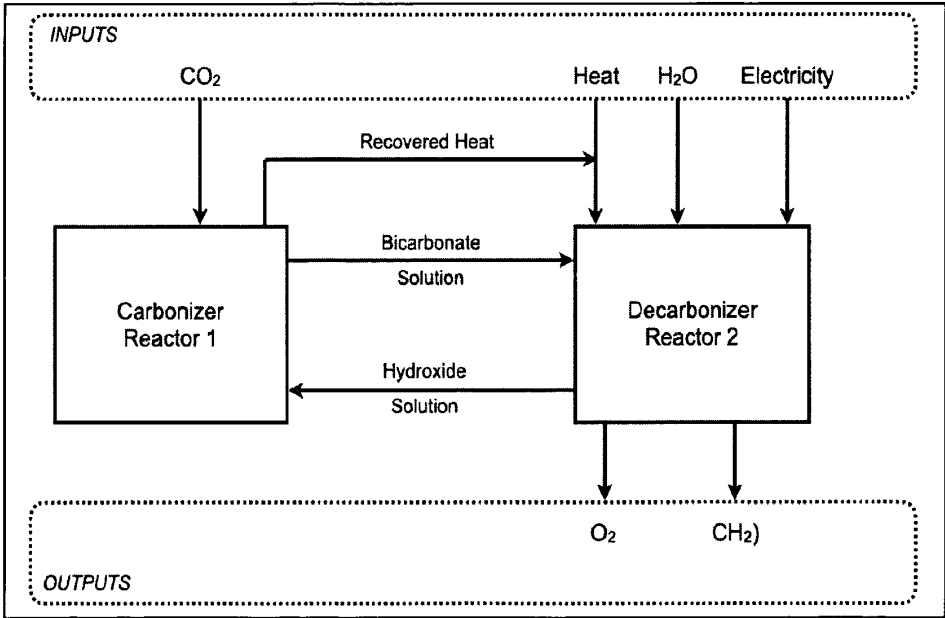


Fig 11

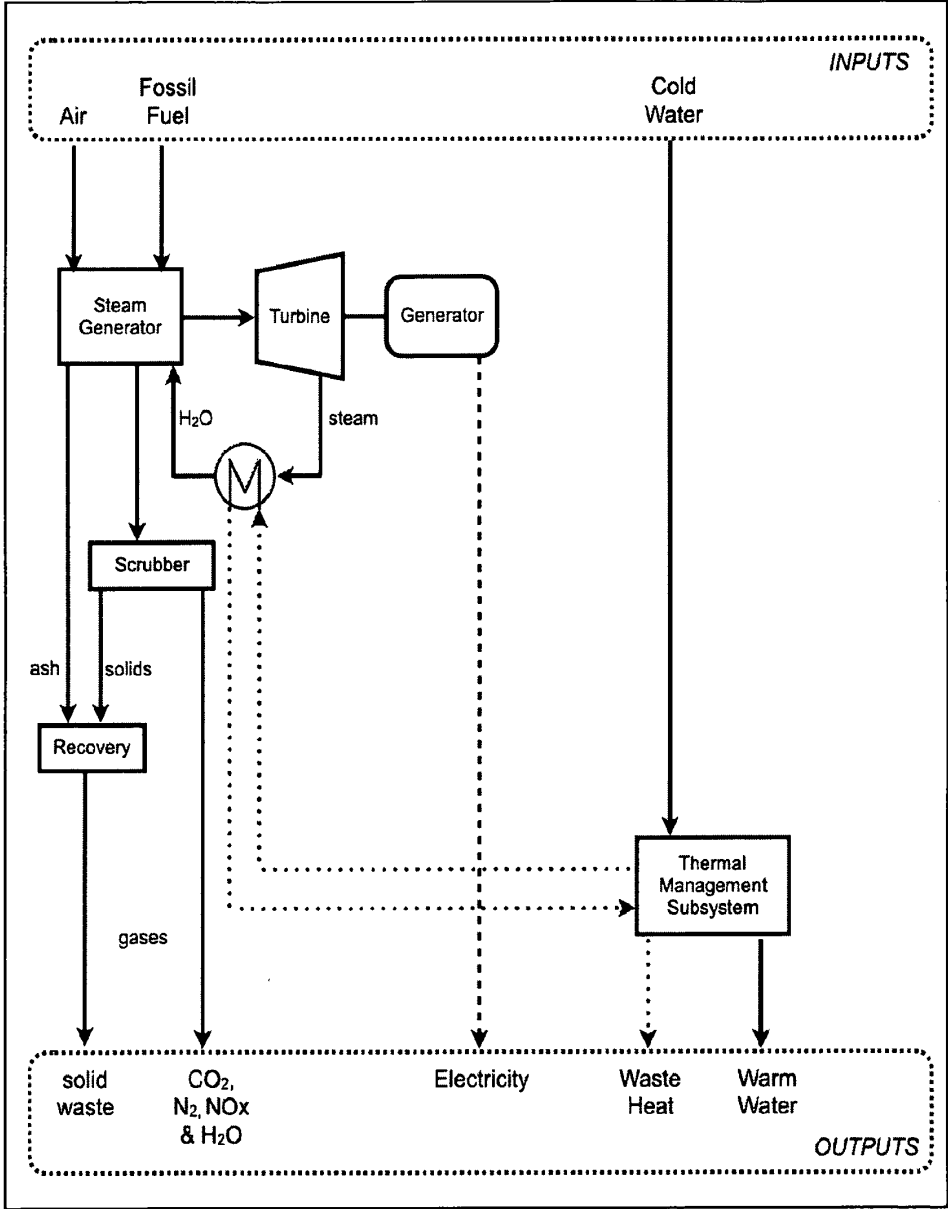


Fig12

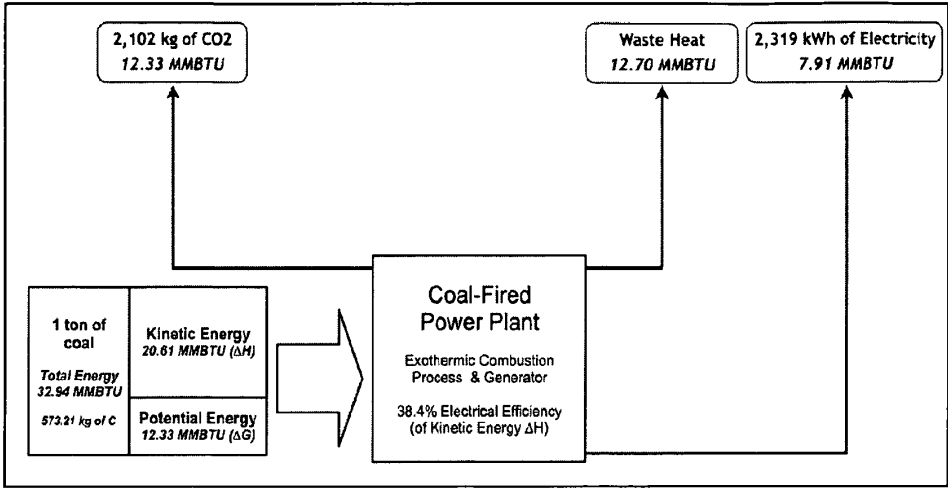


Fig 13

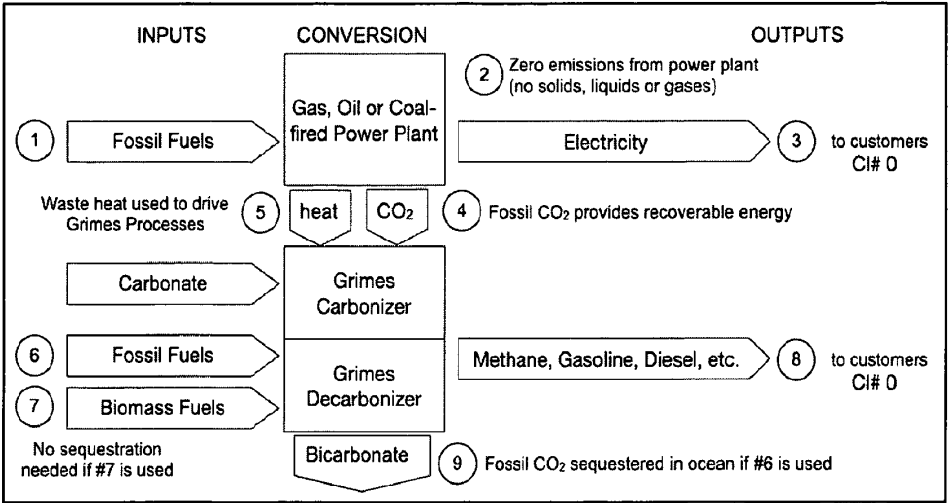


Fig 14

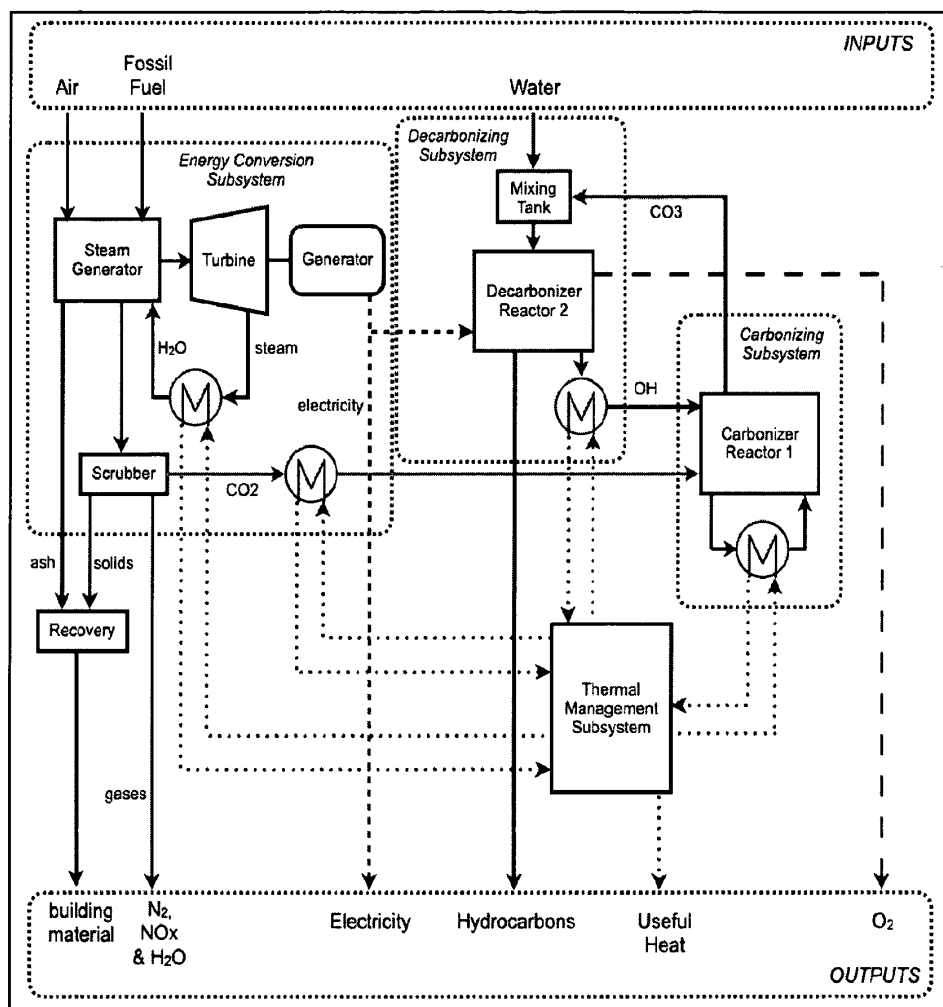


Fig 15

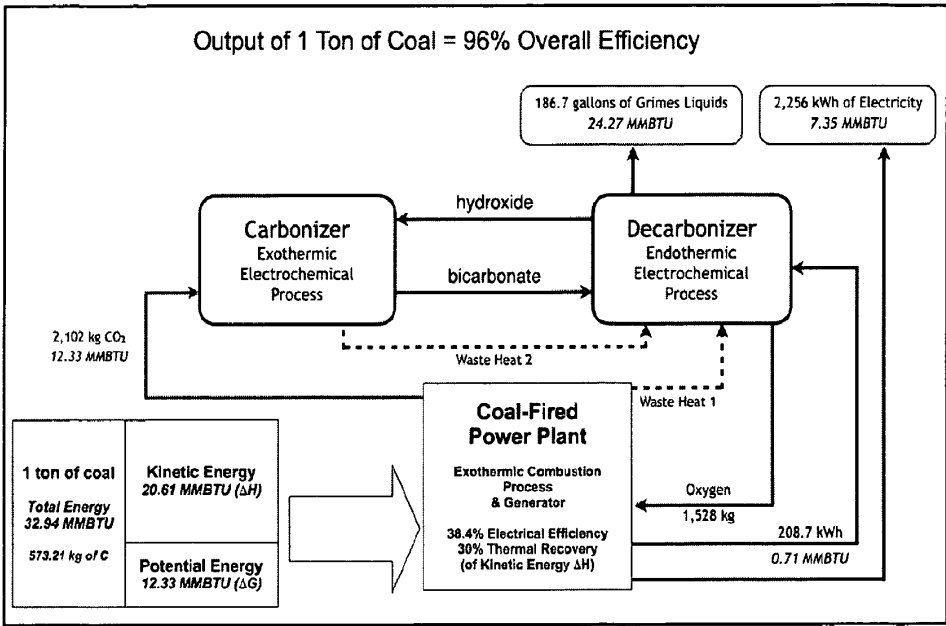


Fig 16

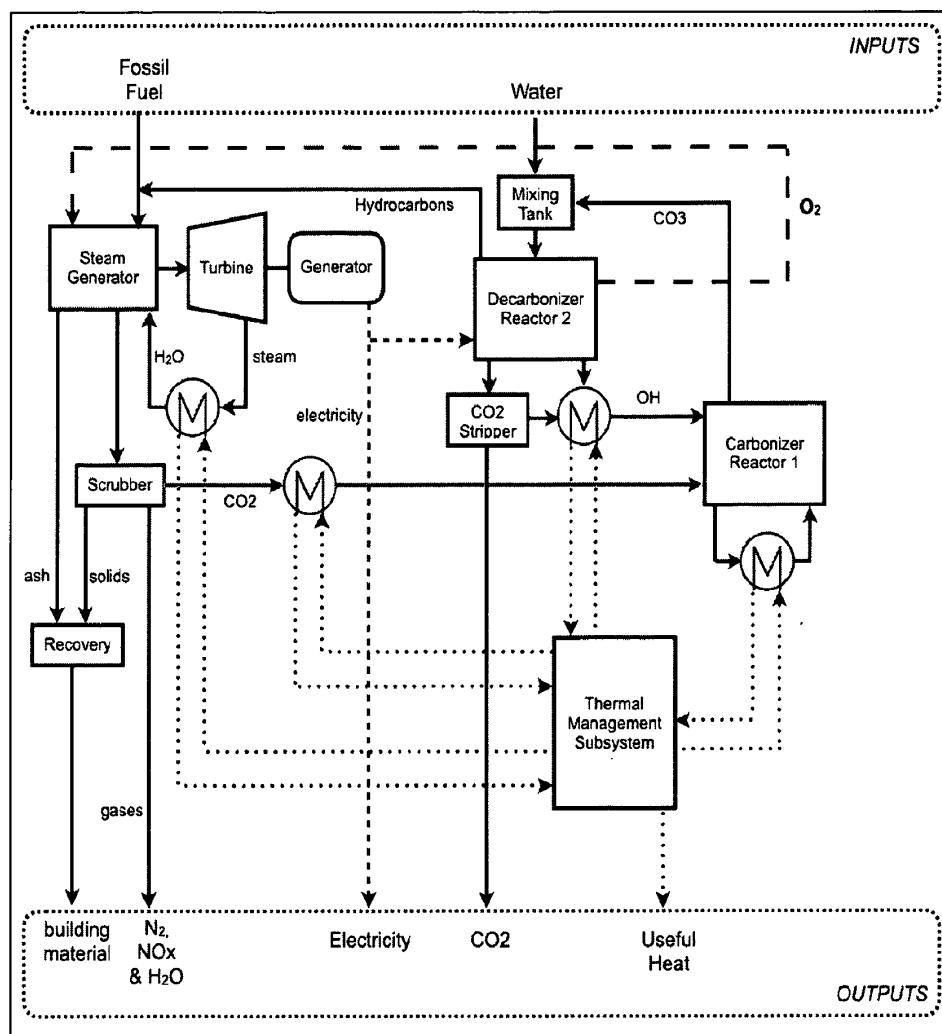


Fig 17

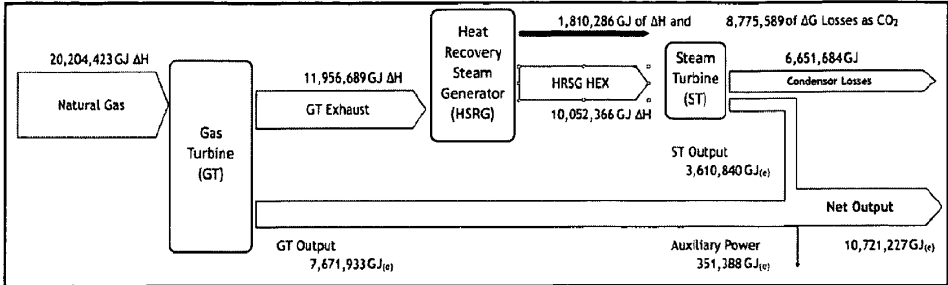


Fig 18

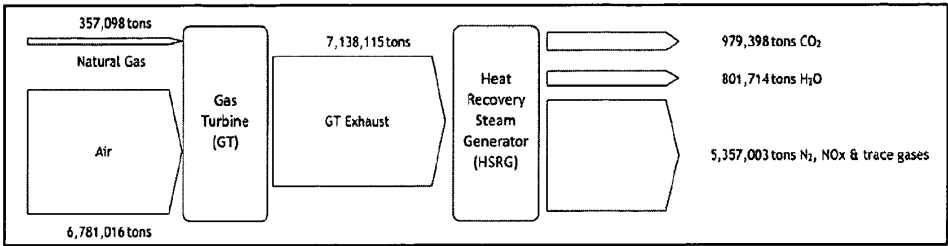


Fig 19

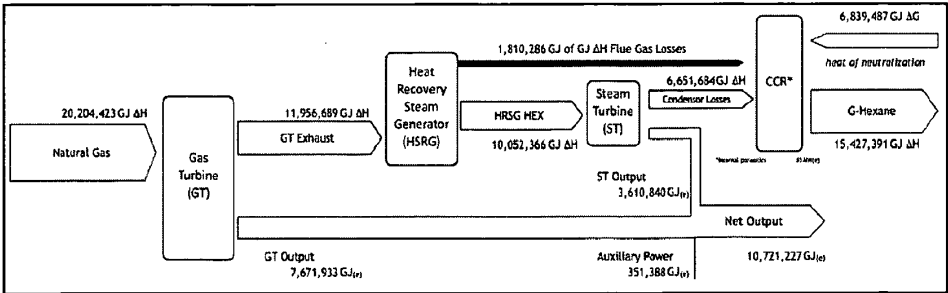


Fig 20

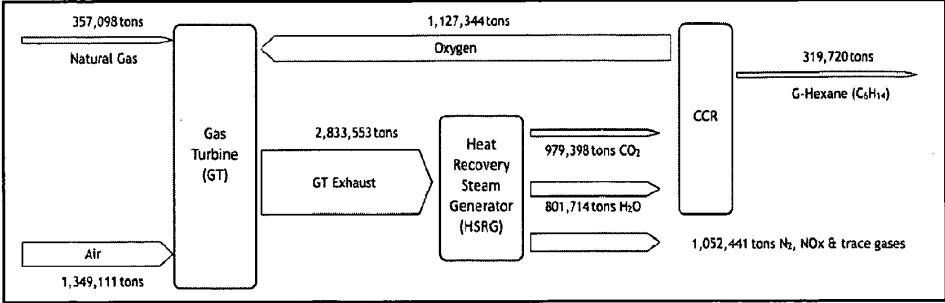


Fig 21

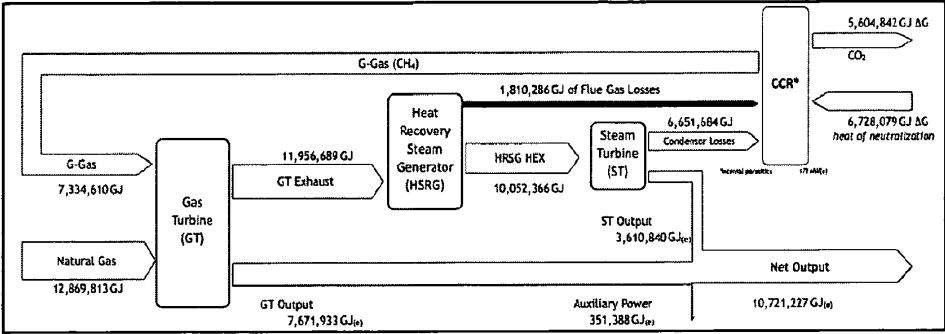


Fig 22

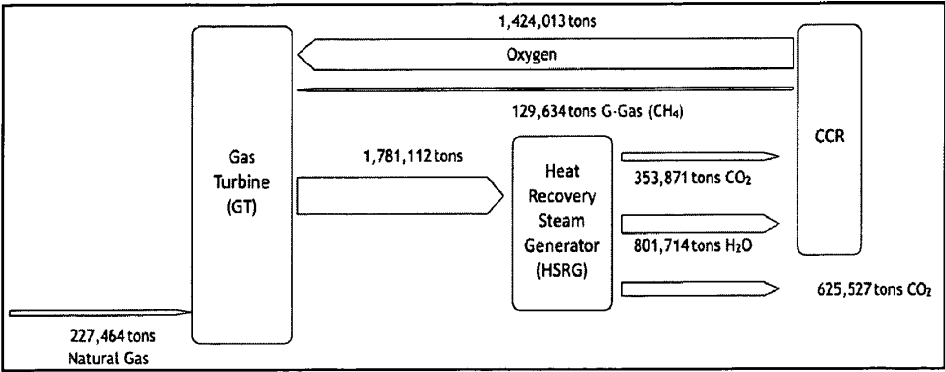


Fig 23

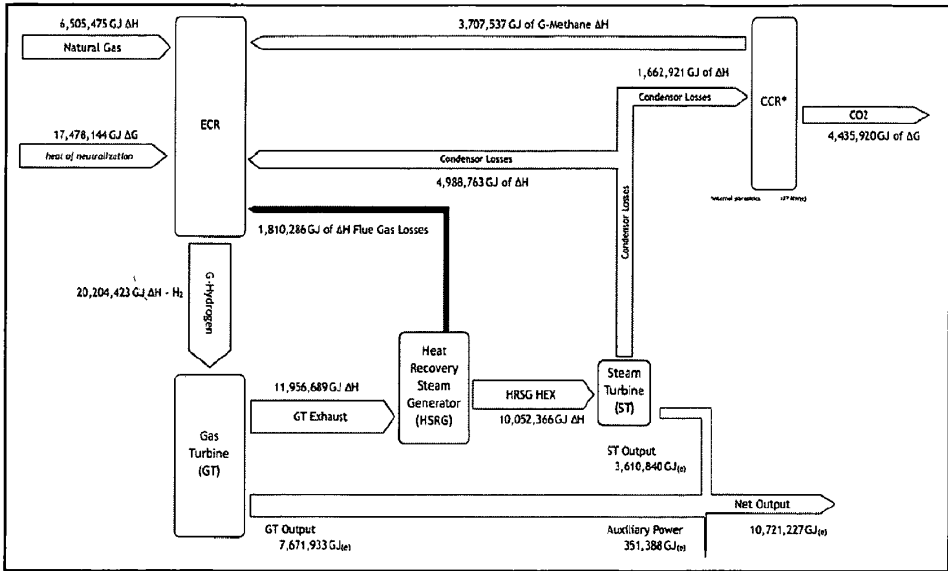


Fig 24

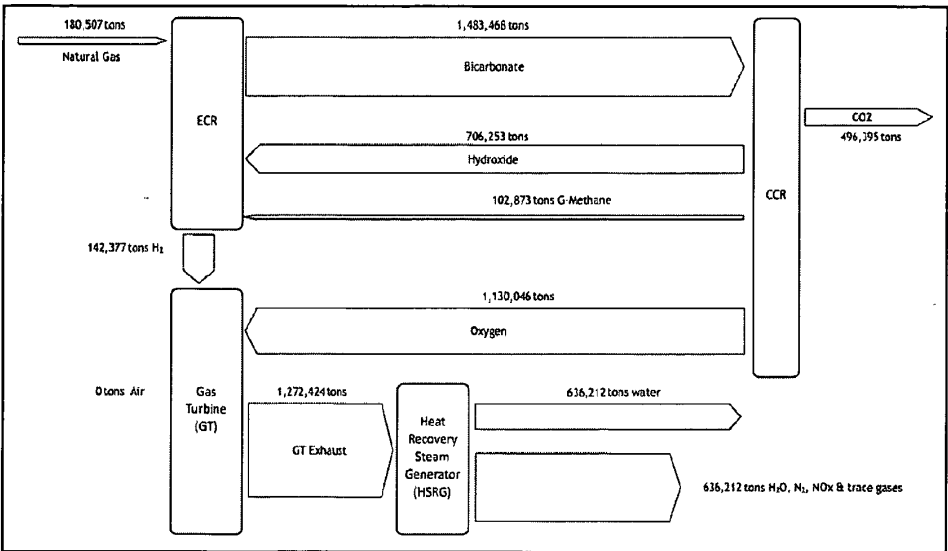


Fig 25

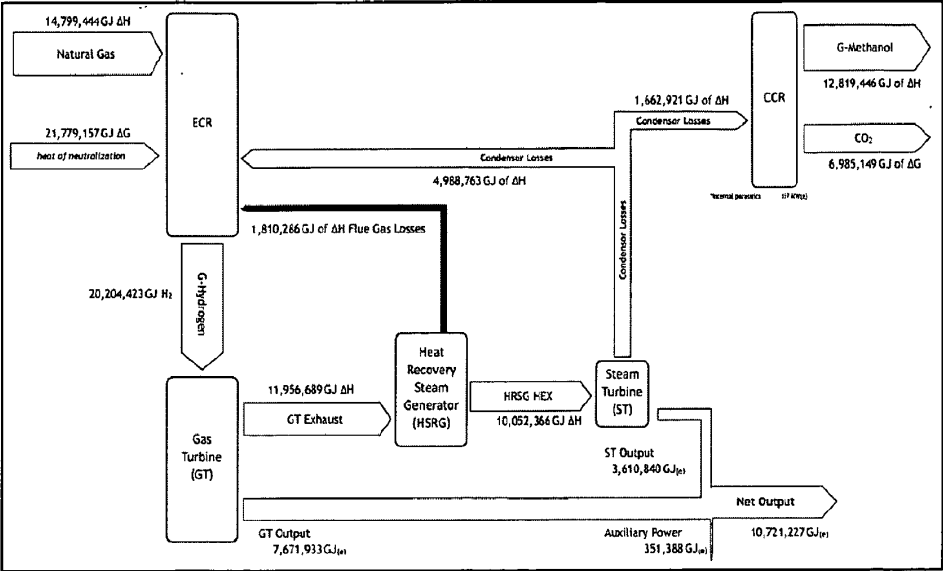


Fig 26

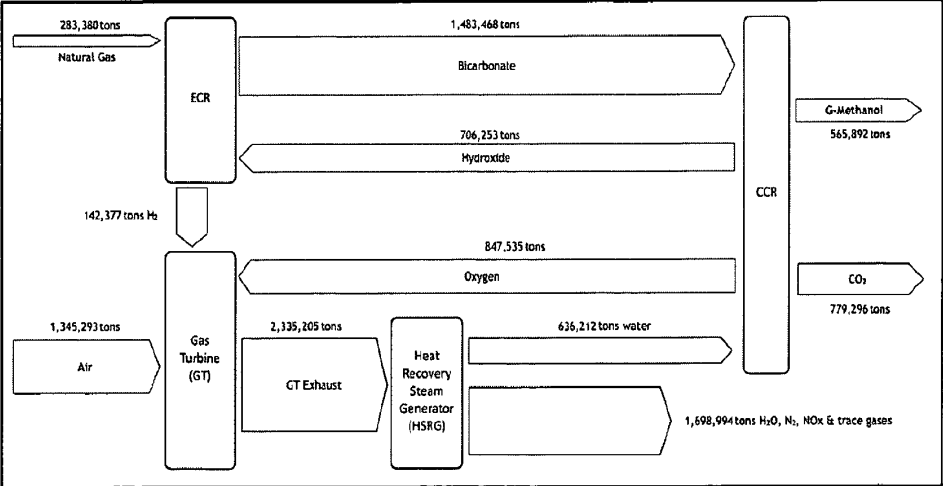


Fig 27

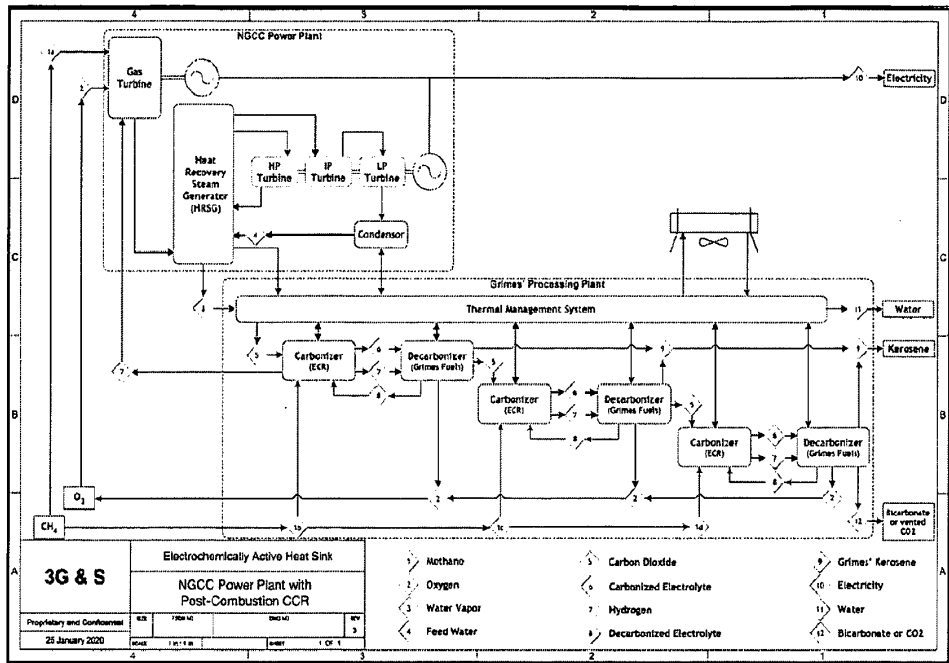


Fig 28

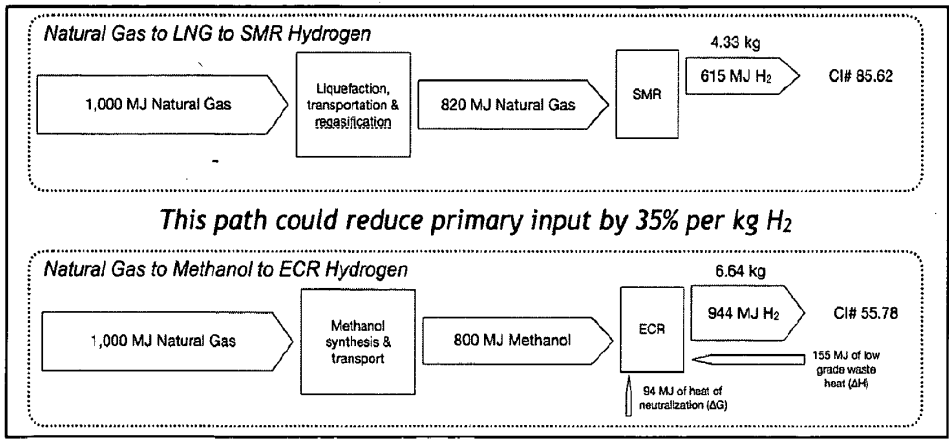


Fig 29

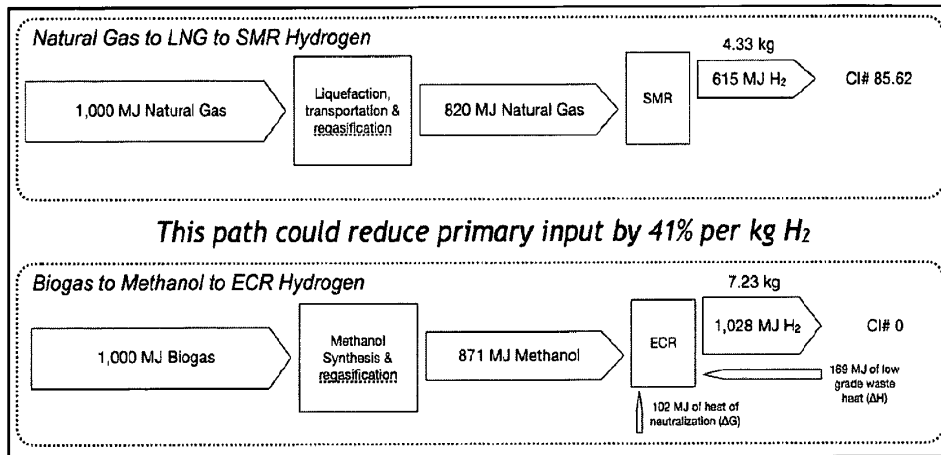


Fig 30

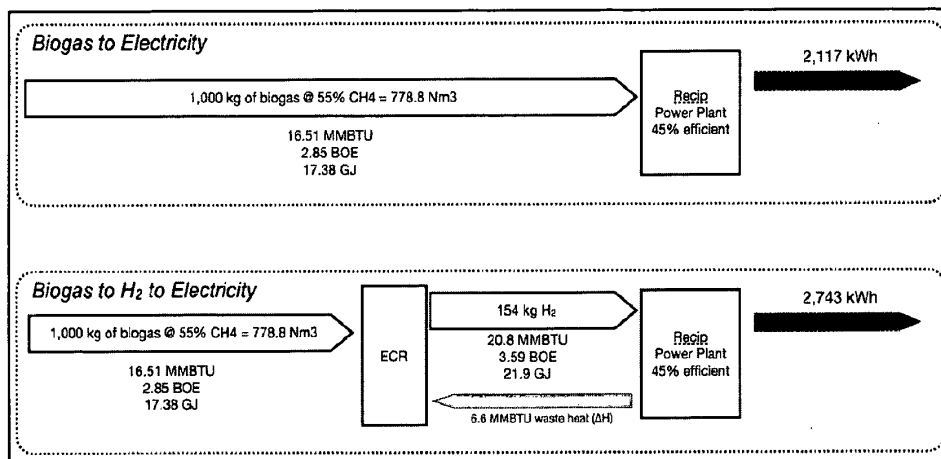


Fig 31

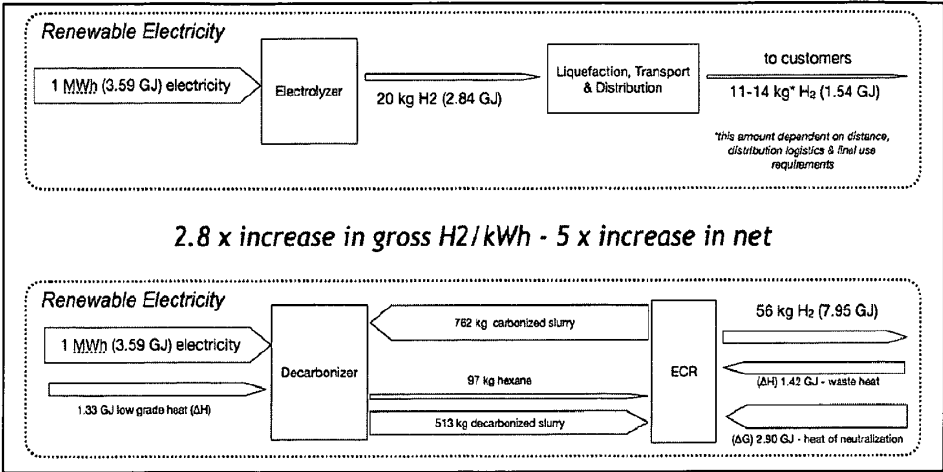


Fig 32

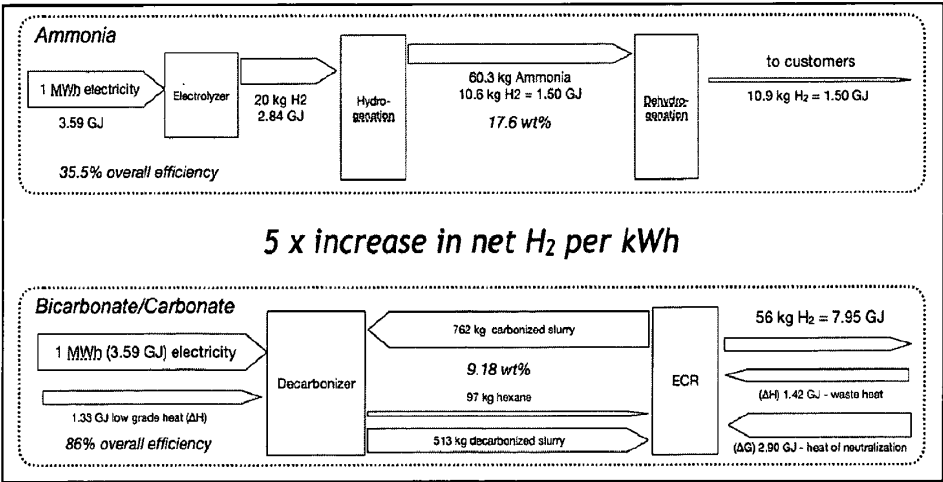


Fig 33

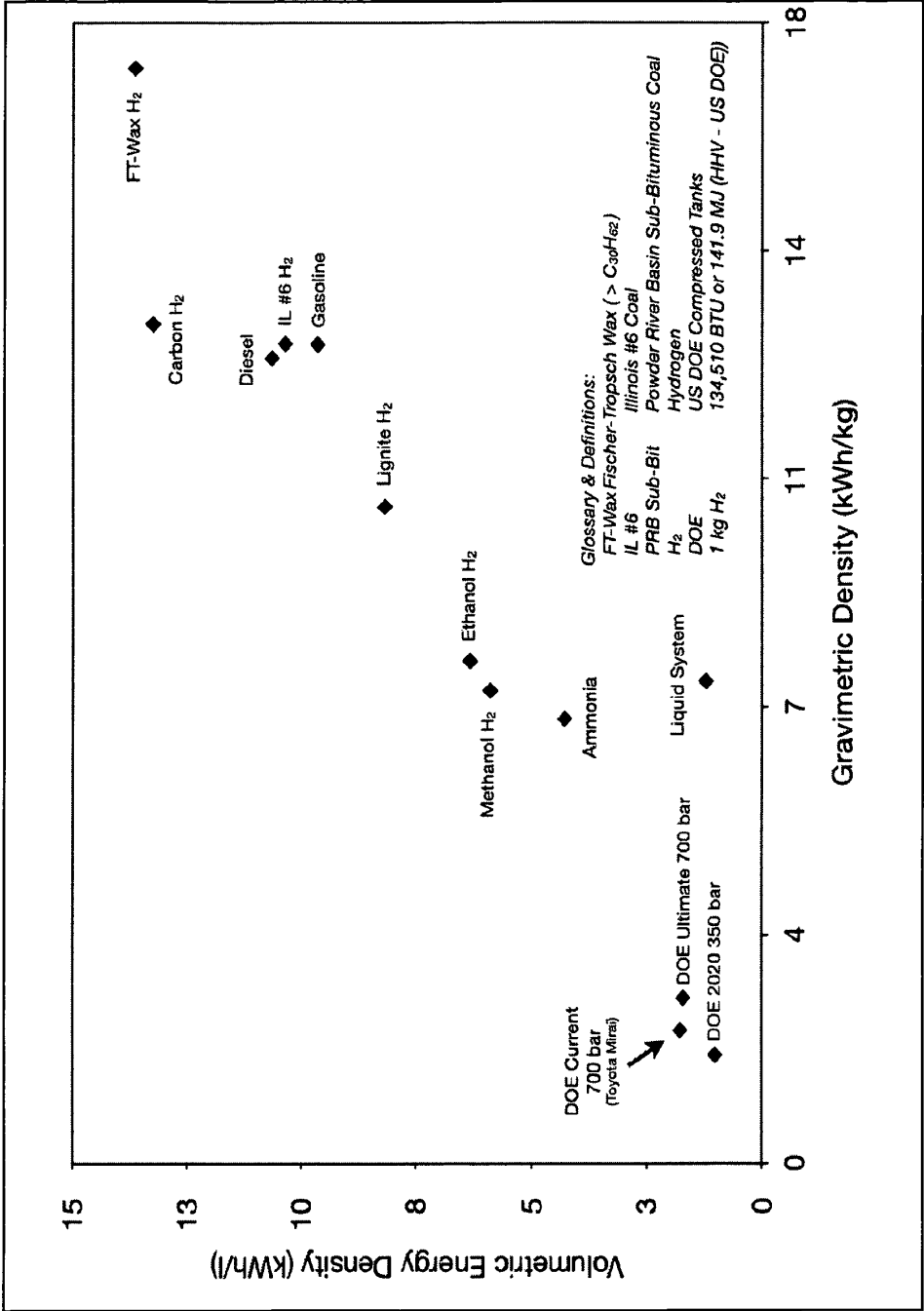


Fig 34

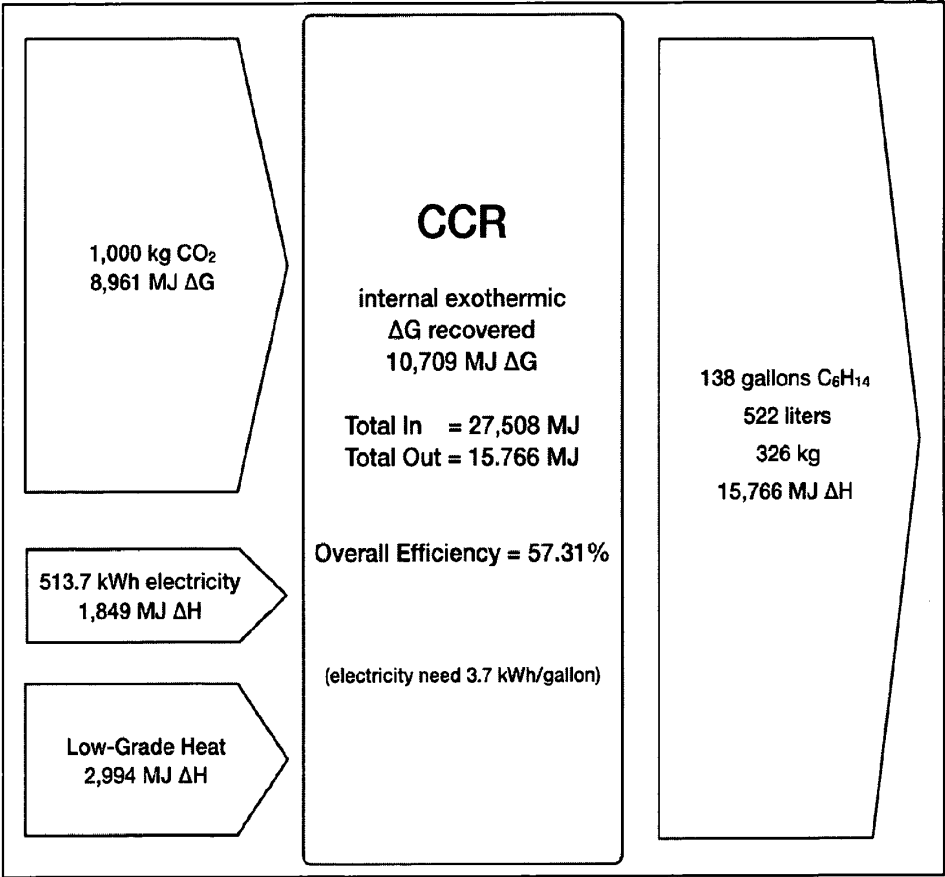


Fig 35

